FIG. 1A

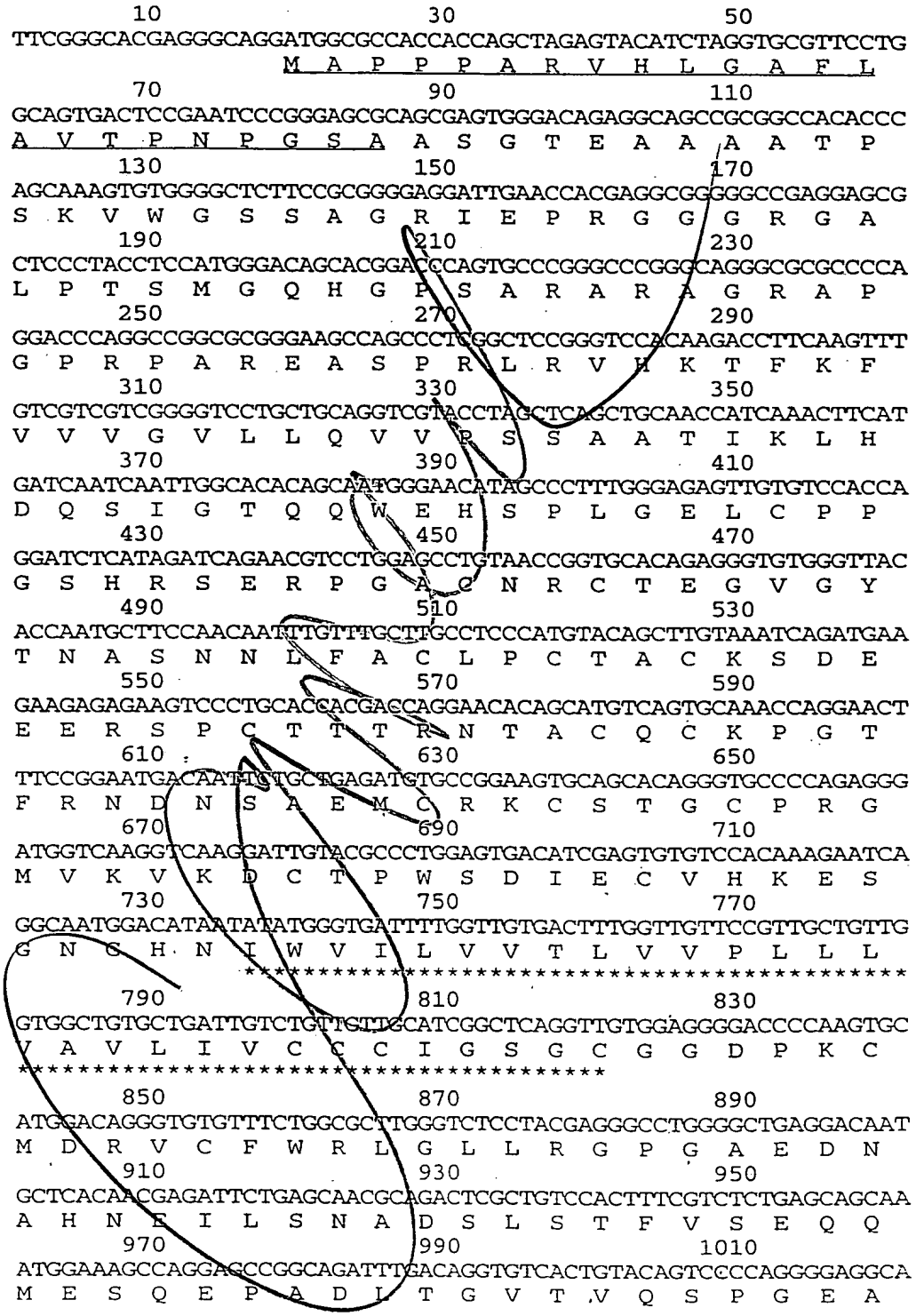
10 30 50
TTCGGGCACGAGGGCAGGATGGCGCCACCACCAGCTAGAGTACATCTAGGTGCGTTCCTG
M A P P P A R V H L G A F L
70 90 110
GCAGTGACTCCGAATCCCGGGAGCGCAGCGAGTGGGACAGAGGCAGCCGCGGCCACACCC
A V T P N P G S A A S G T E A A A A T P
130 150 170
AGCAAAGTGTGGGGCTCTTCCGCGGGGAGGATTGAACCACGAGGCGGGGGCCGAGGAGCG
S K V W G S S A G R I E P R G G G R G A
190 210 230
CTCCCTACCTCCATGGGACAGCACGGACCCAGTGCCCGGGCCCGGGCAGGGCGCGCCCCA
L P T S M G Q H G P S A R A R A G R A P
250 270 290
GGACCCAGGCCGGCGCGGGAAGCCAGCCCTCGGCTCCGGGTCCACAAGACCTTCAAGTTT
G P R P A R E A S P R L R V H K T F K F
310 330 350
GTCGTCGTCGGGGTCCTGCTGCAGGTCGTACCTAGCTCAGCTGCAACCATCAAACTTCAT
V V V G V L L Q V V P S S A A T I K L H
370 390 410
GATCAATCAATTGGCACACAGCAATGGGAACATAGCCCTTTGGGAGAGTTGTGTCCACCA
D Q S I G T Q Q W E H S P L G E L C P P
430 450 470
GGATCTCATAGATCAGAACGTCCTGGAGCCTGTAACCGGTGCACAGAGGGTGTGGGTTAC
G S H R S E R P G A C N R C T E G V G Y
490 510 530
ACCAATGCTTCCAACAATTTGTTTGCTTGCCTCCCATGTACAGCTTGTAAATCAGATGAA
T N A S N N L F A C L P C T A C K S D E
550 570 590
GAAGAGAGAAGTCCCTGCACCACGACCAGGAACACAGCATGTCAGTGCAAACCAGGAACT
E E R S P C T T T R N T A C Q C K P G T
610 630 650
TTCCGGAATGACAATTCTGCTGAGATGTGCCGGAAGTGCAGCACAGGGTGCCCCAGAGGG
F R N D N S A E M C R K C S T G C P R G
670 690 710
ATGGTCAAGGTCAAGGATTGTACGCCCTGGAGTGACATCGAGTGTGTCCACAAAGAATCA
M V K V K D C T P W S D I E C V H K E S
730 750 770
GGCAATGGACATAATATATGGGTGATTTTGGTTGTGACTTTGGTTGTTCCGTTGCTGTTG
G N G H N I W V I L V V T L V V P L L L
790 810 830
GTGGCTGTGCTGATTGTCTGTTGTTGCATCGGCTCAGGTTGTGGAGGGGACCCCAAGTGC
V A V L I V C C C I G S G C G G D P K C
850 870 890
ATGGACAGGGTGTGTTTCTGGCGCTTGGGTCTCCTACGAGGGCCTGGGGCTGAGGACAAT
M D R V C F W R L G L L R G P G A E D N
910 930 950
GCTCACAACGAGATTCTGAGCAACGCAGACTCGCTGTCCACTTTCGTCTCTGAGCAGCAA
A H N E I L S N A D S L S T F V S E Q Q
970 990 1010
ATGGAAAGCCAGGAGCCGGCAGATTTGACAGGTGTCACTGTACAGTCCCCAGGGGAGGCA
M E S Q E P A D L T G V T V Q S P G E A

FIG. 1B

```
      1030                  1050                  1070
CAGTGTCTGCTGGGACCGGCAGAAGCTGAAGGGTCTCAGAGGAGGAGGCTGCTGGTTCCA
Q  C  L  L  G  P  A  E  A  E  G  S  Q  R  R  R  L  L  V  P
      1090                  1110                  1130
GCAAATGGTGCTGACCCCACTGAGACTCTGATGCTGTTCTTTGACAAGTTTGCAAACATC
A  N  G  A  D  P  T  E  T  L  M  L  F  F  D  K  F  A  N  I
      1150                  1170                  1190
GTGCCCTTTGACTCCTGGGACCAGCTCATGAGGCAGCTGGACCTCACGAAAAATGAGATC
V  P  F  D  S  W  D  Q  L  M  R  Q  L  D  L  T  K  N  E  I
      1210                  1230                  1250
GATGTGGTCAGAGCTGGTACAGCAGGCCCAGGGGATGCCTTGTATGCAATGCTGATGAAA
D  V  V  R  A  G  T  A  G  P  G  D  A  L  Y  A  M  L  M  K
      1270                  1290                  1310
TGGGTCAACAAAACTGGACGGAACGCCTCGATCCACACCCTGCTGGATGCCTTGGAGAGG
W  V  N  K  T  G  R  N  A  S  I  H  T  L  L  D  A  L  E  R
      1330                  1350                  1370
ATGGAAGAGAGACATGCAAAAGAGAAGATTCAGGACCTCTTGGTGGACTCTGGAAAGTTC
M  E  E  R  H  A  K  E  K  I  Q  D  L  L  V  D  S  G  K  F
      1390                  1410                  1430
ATCTACTTAGAAGATGGCACAGGCTCTGCCGTGTCCTTGGAGTGAAAGACTCTTTTTACC
I  Y  L  E  D  G  T  F  S  A  V  S  L  E
      1450                  1470                  1490
AGAGGTTTCCTCTTAGGTGTTAGGAGTTAATACATATTAGGTTTTTTTTTTTTTAACAT
      1510                  1530                  1550
GTATACAAAGTAAATTCTTAGCCACGTGTATTGGCTCCTGCCTGTAATCCCATCACTTTG
      1570                  1590                  1610
GGAGGCTGACGCCGGTGGATCCACTTGAGGTCCGAAGTTCCAAGACCAGCCCTGAACCAA
      1630                  1650                  1670
CATCGTGGAAATGCCCGTCTTTTACAAAAAAATACCAAAAATTCAACTGGAATGTGCATG
      1690                  1710                  1730
GTGTGTGCCATCATTTCCTCGGCTAACTACGGGAGGTCTGAGGCCAGGAGAATCCACTTG
      1750                  1770                  1790
AACCCCACGAAGGACAGTGTAGACTGCAGATTGCACCACTGCACTCCCAGCCTGGGAACA
      1810                  1830                  1850
CAGAGCAAGACTCTGTCTCAAGATAAAATAAAATAAACTTGAAAGAATTATTGCCCGACT
      1870                  1890                  1910
GAGGCTCACATGCCAAAGGAAAATCTGGTTCTCCCCTGAGCTGGCCTCCGTGTGTTTCCT
      1930                  1950                  1970
TATCATGGTGGTCAATTGGAGGTGTTAATTTGAATGGATTAAGGAACACCTAGAACACTG
      1990                  2010                  2030
GTAAGGCATTATTTCTGGGACATTATTTCTGGGCATGTCTTCGAGGGTGTTTCCAGAGGG
      2050                  2070                  2090
GATTGGCATGCGATCGGGTGGACTGAGTGGAAAAGACCTACCCTTAATTTGGGGGGGCAC
      2110                  2130                  2150
CGTCCGACAGACTGGGGAGCAAGATAGAAGAAAACAAAAAAAAAAAAAAAA
```

FIG. 2A

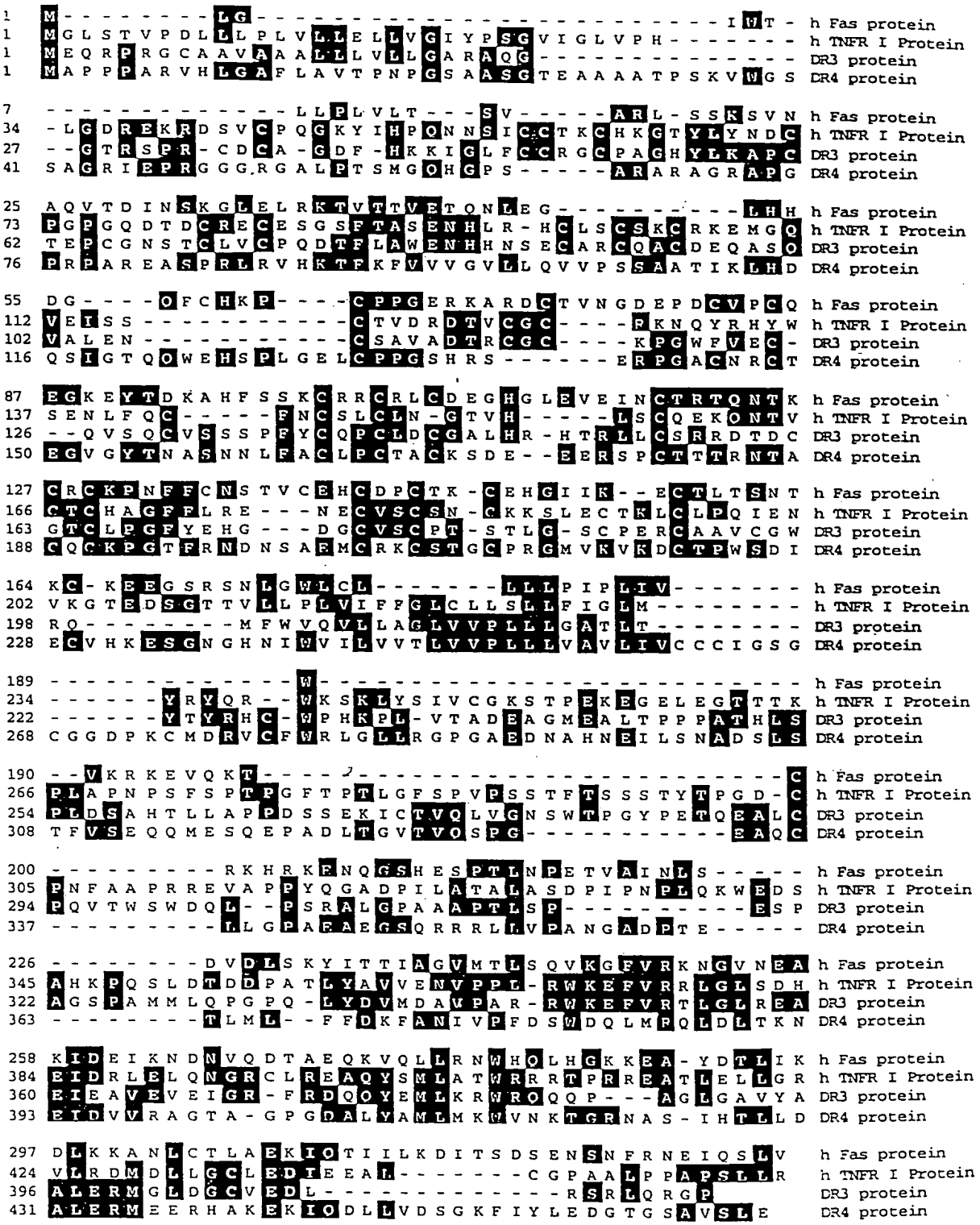

FIG. 2B

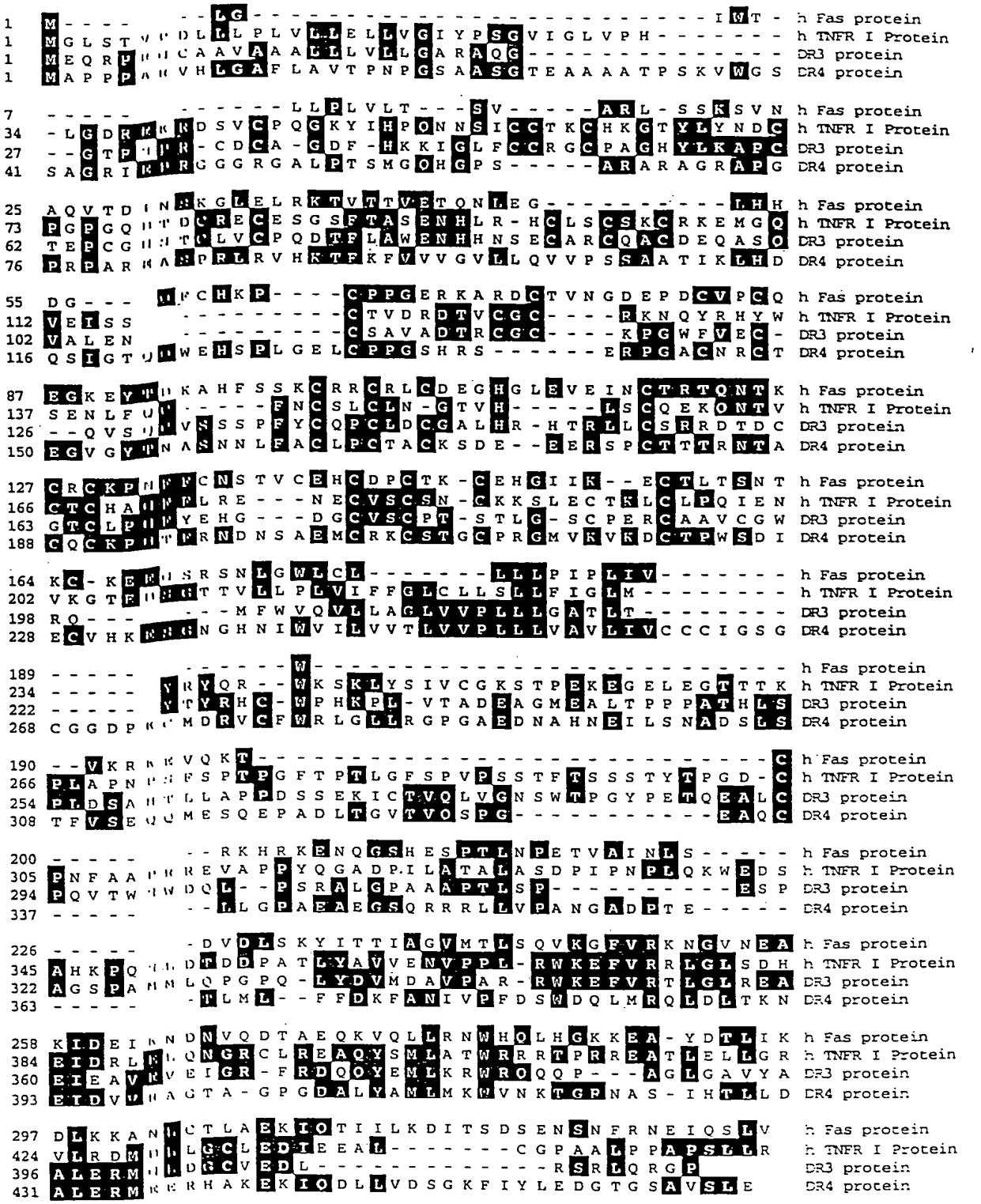

Figure 3

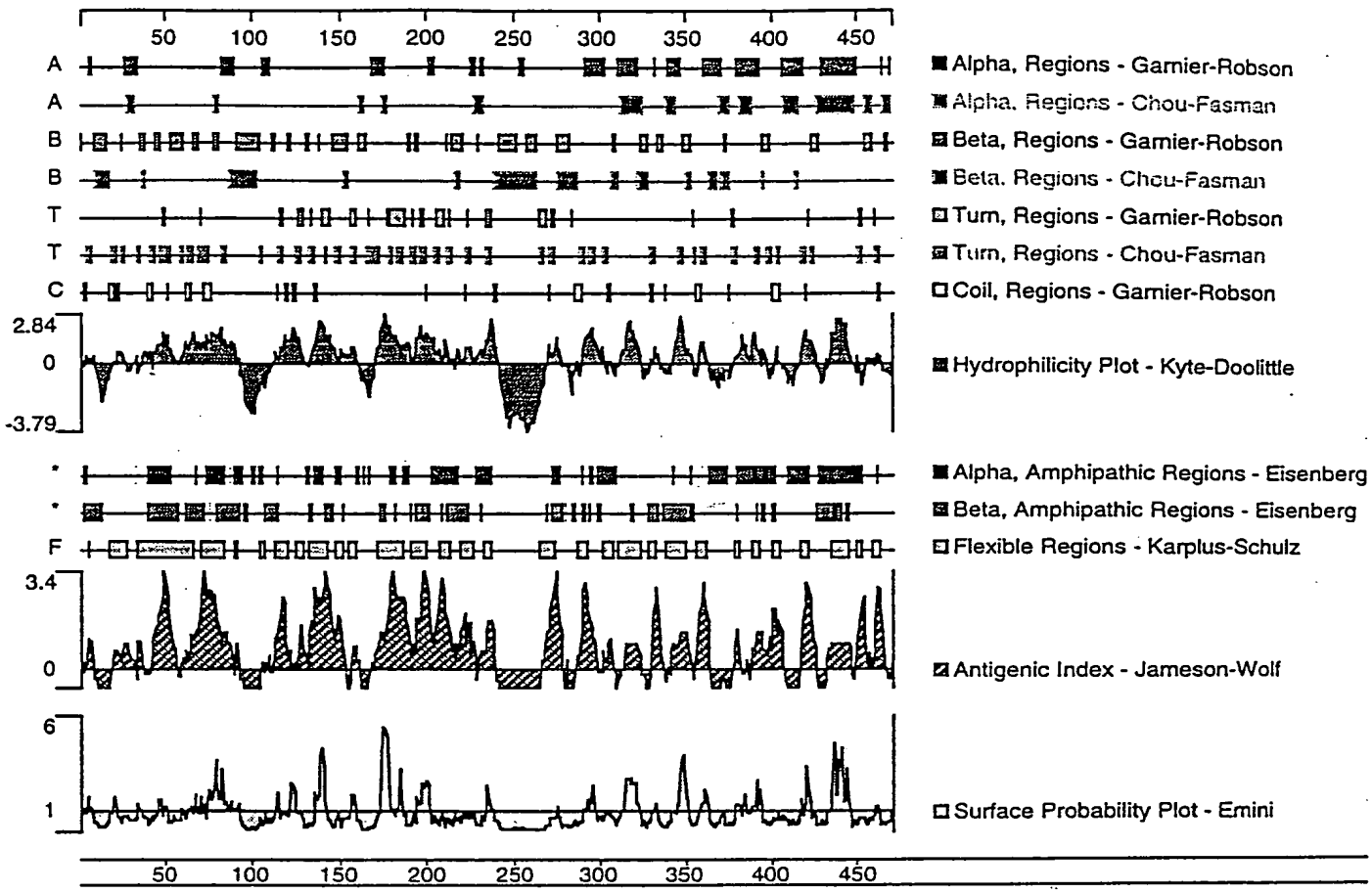
50
100
150
200
250
300
350
400
450
A
A
B
B
T
T
C
Alpha, Regions - Garnier-Robson
Alpha, Regions - Chou-Fasman
Beta, Regions - Garnier-Robson
Beta, Regions - Chou-Fasman
Turn, Regions - Garnier-Robson
Turn, Regions - Chou-Fasman
Coil, Regions - Garnier-Robson
2.84
0
-3.79
Hydrophilicity Plot - Kyte-Doolittle
Alpha, Amphipathic Regions - Eisenberg
Beta, Amphipathic Regions - Eisenberg
F
Flexible Regions - Karplus-Schulz
3.4
0
Antigenic Index - Jameson-Wolf
6
1
Surface Probability Plot - Emini

FIG. 4A

HTOIY07R

```
  1 GGCANAGGTN CGTACCTAGC TCACCTGCAA CCATCAAACT TNATGATCAA
 51 TCAATTGGCA CACAGCAATG GGAAACATAG CCCTTTGGAA GANTTGTNTC
101 CACCAGGATC TCATAGATCA AAACATCCTG GGAGCCTGTT AACCGGTGCC
151 CCAAAGGNTG GTCAAGGTCA AGGAATTGTT NCGCCCTGGA AGTGAACATC
201 GAGTGTNTCC ACAAAGGATT CAGGCAATGG GACATAAATA TATGGGTGAA
251 TTTTGGTTGT GAACTTTGGT TGNTCCCGTT GNTGTTGNTG GCTGTGCTGA
301 TTGTTTGTTG TTGCATCGGC TTCAGGTTNT GGAGGGGGAC CCAAGTGCAT
351 GGACAGGGTG TGTTTCTGGG GTTTGGGTCT CTTAGAGGGC NTGGGTTANG
401 GCANGTTCAC AAGGGTTTTA GCAANG
```

FIG. 4B

HTXEY80R

```
  1 TGGGGCTGAG GACAATGCTG ACNACGAGAT TCTGAGCAAC GCAGNACTNG
 51 CTGTCCACTT TCGTCTNTGN GCAGCAAATG GAAAGCCAGG AGCCGGCAGA
101 TTTGACAGGT GTCACTGTAC AGTCCCCAGG GGAGGCACAG TGTCTGCTGG
151 TGAGTTGGGG ACAGGCCCTT GCAAGACCTT GTGAGGCAGG GGGTGAAGGC
201 CATGNCTCGG CTTCNNNTGG TCAAAGGGGA AGTGGAGCCT GAGGGAGATG
251 GGACTTNAGG GGGACGGNGC TGCGTGGGGA AAAAGCAGCC ACCNTTTGAC
301 AAGGGGGACA GGCATTTTTN CAAATGTGTG CTTNTTGGT
```

Figure 5A

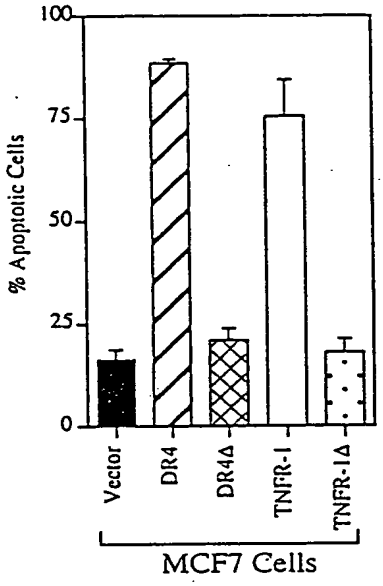

Figure 5B

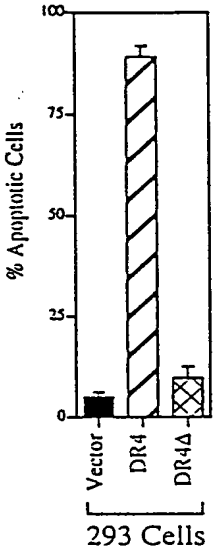

Figure 5C

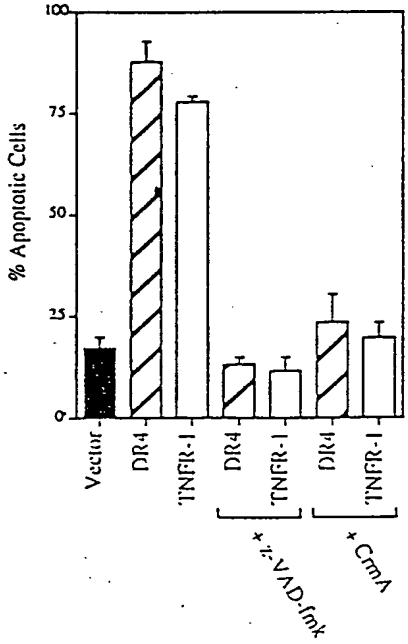

Figure 6A

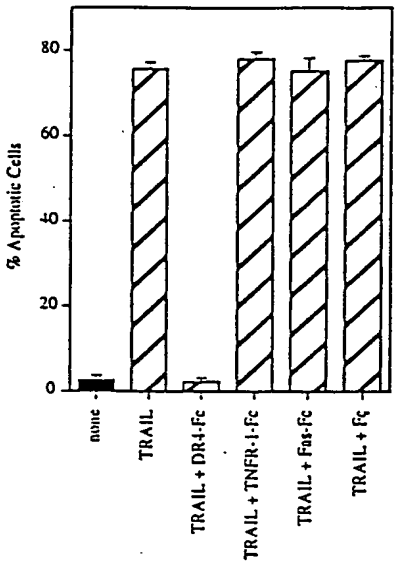

Figure 6B